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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,717	01/12/2004	Karlo Popp	054821-0879	9773
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Marcus W. Sprow Foley & Lardner Suite 3800 777 East Wisconsin Avenue Milwaukee, WI 53202-5306				
			EXAMINER ONEILL, KARIE AMBER	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/755,717	Applicant(s) POPP, KARLO	
	Examiner KARIE ONEILL	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 19, 2007, has been entered.

Claims 9-12 have been added as new, however, they are withdrawn from consideration for being drawn to claims that are independent from the originally filed claims. Therefore, Claims 1-8 are pending in this office action.

Election/Restrictions

2. Newly submitted claim 9 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The subject matter of the aforementioned claim is "a rechargeable battery comprising: a connecting pole comprising a pole shank inserted into a pole sleeve, the pole shank having first and second sections wherein the diameter of the first section is smaller than the diameter of the second section, a sliding element provided between a second section of the pole shank and the inner surface of the pole sleeve, and wherein the sliding element is formed from polypropylene and is configured to reduce the sliding friction between the pole shank and the pole sleeve during insertion of the pole shank into the pole sleeve", which is from the "a rechargeable battery comprising: a connecting pole comprising a

pole shank inserted into a pole sleeve, the pole shank having first and second sections wherein the diameter of the first section is smaller than the diameter of the second section, a sliding element provided between a second section of the pole shank and the inner surface of the pole sleeve” as recited in the original claim.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 9 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. Newly submitted claims 10-12 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The subject matter of the aforementioned claim is “a rechargeable battery comprising: a connecting pole comprising a pole shank inserted into a pole sleeve, the pole shank having first and second sections wherein the diameter of the first section is smaller than the diameter of the second section, a sliding element provided between a second section of the pole shank and the inner surface of the pole sleeve, and wherein the first section and the pole sleeve are configured so that an immediate space is formed between the first section and the pole sleeve when the pole shank is inserted into the pole sleeve”, which is from the “a rechargeable battery comprising: a connecting pole comprising a pole shank inserted into a pole sleeve, the pole shank having first and second sections wherein the diameter of the first section is smaller than the diameter of the second

section, a sliding element provided between a second section of the pole shank and the inner surface of the pole sleeve" as recited in the original claim.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 10-12 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by "the connecting pole being closed from the outside of the rechargeable battery".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quist (US 4,410,610) in view of Lund et al. (US 6,309,429 B1).

With regard to Claim 1, Quist discloses In Figure3, a rechargeable battery having a cover (5), the rechargeable battery comprising: at least one connecting pole comprising a pole shank, called a post (6), inserted into a pole sleeve, called a metal sleeve (1) having an inner surface (9), wherein the pole sleeve (1) is electrically conductively connected to the pole shank (6) and is held in a liquid-tight and gas-tight manner by the cover (5) (column 2 lines 17-22 and lines 34-36); wherein a first section of the pole shank (6) is electrically conductively connected in a gas-tight and liquid-tight manner to the inner surface of the pole sleeve (9) (column 2 lines 17-22 and lines 34-36); and further comprising a sliding element, called a sealing element (2), provided between a second section of the pole shank (6) and the inner surface of the pole sleeve (1) forming an inner surface (4) of the sealing element. Quist does not disclose wherein the connecting pole being closed from the outside of the rechargeable battery such that the rechargeable battery is liquid-tight and gas-tight; and wherein the diameter of the first section of the pole shank is smaller than the diameter of the second section of the pole shank.

Lund et al. discloses in Figures 1 and 2, a lead acid storage battery (10) including a case (12) and cover (20) having terminal posts (22) extending upwardly through terminal bushings (21). The case (12) contains a plurality of battery cell elements that are electrically coupled to the terminals (11) on the top side thereof (column 3 lines 1-4). In Figure 2, it can be seen that the rechargeable battery located in the lower portion of

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the housing is closed off from the terminal posts (22) and is only attached to the bottom portion of the terminal posts. This arrangement allows for the rechargeable battery to be liquid-tight and gas-tight. In another embodiment, Figure 6, Lund et al. discloses wherein the terminal post (22), or connecting pole, is closed off from the outside of the entire rechargeable battery by applying a final or outer cover (5). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to use an outer cover to close the terminal posts off from the outside of the battery of Quist, because Lund et al. teaches providing a hermetic seal about the formed terminal (column 6 lines 3-9). Lund et al. also discloses in Figure 3, wherein the terminal posts (22), or pole shank, have a slight upward external taper (column 3 lines 9-12), resulting in the first section (the upper portion) of the pole shank having a smaller diameter than a second section (lower portion) of the pole shank. Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to use a terminal post having a first section with a diameter smaller than a second section as part of the rechargeable battery of Quist, because Lund et al. teaches that the tapered terminal post is easily positionable into respective tapered axial openings of the bushings, which allow for proper seating of the terminal during assembly of the cover on to the battery case (column 3 lines 11-17).

With regard to Claim 2, Quist discloses wherein the first section of the pole shank is provided toward a free end of the pole shank, the first section being considered the uppermost section closest to the battery cover, and the sliding element, or sealing element (2) is surrounded at least in places by a section of the pole sleeve which is

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used to attach the pole sleeve to the cover. This attachment section is called a seat (10) and is a portion in which the sealing element is axially displaced while maintaining a good seal between the cover (5) and the sealing element (2).

With regard to Claim 3, Quist discloses wherein the sliding element, or sealing element (2), is provided in the form of an insert in the metal pole sleeve (1). The metal sleeve (1) is embedded with a sealing element (2) having external (3) and internal (4) surfaces for making contact with the battery cover (5) and post (6).

With regard to Claim 4, Quist discloses wherein the metal sleeve (1) is embedded with a sealing element (2) having external (3) and internal (4) surfaces for making contact with the battery cover (5). The term integral means, of, pertaining to, or belonging as a part of the whole; constituent or component. Because the sliding element, or sealing element (2), is resilient and provided with an external bearing surface (3) which is in sealing contact with the battery case (5) (column 2 lines 23-26), the sliding element, or sealing element (2), and the cover (5) become two parts making a whole.

With regard to Claims 5 and 6, Quist discloses wherein the metal sleeve (1) is embedded with a sealing element (2) having external (3) and internal (4) surfaces for making contact with the battery cover (5) and post (6). The definition of coating is: a layer of any substance spread over a surface. The definition of covering is: something laid over or wrapped around a thing. The sliding element (2) both covers and coats the pole shank (6) at the inner surface (4) of the sliding element, as can be seen in Figure 3.

With regard to Claim 7, Quist discloses in Figures 1 and 3, wherein the sliding element, or sealing element (2), is provided in the form a ring which is provided on the insertion opening in the pole sleeve, or metal sleeve (1), or the lowermost portion of the metal sleeve (1). Quist does not disclose wherein the pole sleeve comprises an insertion opening formed by a circumferential incline which enlarges the internal diameter of the pole sleeve.

Lund et al. discloses wherein the pole sleeve, or bushing (21) comprises an insertion opening (24) formed by a circumferential incline with an outwardly flared chamfer (25) which enlarges the inner diameter of the pole sleeve, or bushing (24). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to have an enlarged insertion opening of the pole sleeve of the rechargeable battery of Quist, because Lund et al. teaches the outwardly flared chamfer, or enlarged opening, guides respective terminal posts into proper seating relation to the bushing during assembly of the cover on to the case (column 3 lines 9-17).

With regard to Claim 8, Quist discloses wherein the sliding element, or sealing element (2), preferably consists of rubber (column 2 lines 28-30), a thermoplastic material.

Conclusion

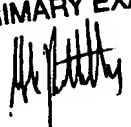
Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARIE ONEILL whose telephone number is (571)272-

8614. The examiner can normally be reached on Monday through Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karie O'Neill
Examiner
Art Unit 1795

MARK RUTHKOSKY
PRIMARY EXAMINER
 1/18/2008

KAO